4. The composition of Claim 1 wherein L-selectin and interleukin-1β, which serve as indexes of innate immune function, are augmented in mammalian and avian species.

5. The composition of Claim 1 wherein mammalian species include all ruminant animals.

6. The composition of Claim1 wherein mammalian species include dairy cattle, beef cattle and sheep.

7. The composition of Claim 1 wherein mammalian species include sheep.

8. The composition of Claim 1 wherein avian species include poultry species used in commercial livestock production.

9. The composition of Claim 2 wherein mammalian species include all ruminant animals.

10. The composition of Claim2 wherein mammalian species include dairy cattle, beef cattle and sheep.

11. The composition of Claim 2 wherein mammalian species include sheep.

12. The composition of Claim 2 wherein avian species include poultry species used in commercial livestock production.

13. The composition of Claim 3 wherein mammalian species include all ruminant animals

14. The composition of Claim 3 wherein mammalian species include dairy cattle, beef cattle and sheep.

15. The composition of Claim 3 wherein mammalian species include sheep.

16. The composition of Claim 4 wherein avian species include poultry species used in commercial livestock production.

17. The composition of Claim 4 wherein mammalian species include all ruminant animals

18. The composition of Claim 4 wherein mammalian species include dairy cattle, beef cattle and sheep.

19. The composition of Claim 4 wherein mammalian species include sheep.

20. The composition of Claim 4 wherein avian species include poultry species used in commercial livestock production.

21. The composition of Claim 1, wherein the mineral clay product is montmorillonite, bentonite, aluminosilicate, or zeolite clays, or mixtures thereof.

22. The composition of Claim 1, wherein the β-1,3 (4)-endoglucanohydrolase is produced from submerged fermentation of *Trichoderma longibrachiatum*.

23. The composition of Claim 1, wherein the β-glucans and glucomannan are derived from boiling and enzyme autolysis of gram positive yeast cell walls from the genera of *Saccharomyces*.

24. The composition of Claim 23, wherein the β-glucans and glucomannan are derived from boiling and enzyme autolysis of gram positive yeast cell walls from *Saccharomyces cerevisiae*.

25. The composition of Claim 1, wherein the diatomaceous earth is calcined at a minimum temperature of 900°C.

26. The composition of Claim 1, wherein the composition comprises between 15% and 40% diatomaceous earth, between 50% and 81% mineral clay, between 1.0% and 5.0% β-glucans, between 0.05% and 3.0% β-1,3 (4)-endoglucanohydrolase and between 1% and 8.0% glucomannan.

27. The composition of Claim 1, wherein the composition comprises between 20% and 30% diatomaceous earth, between 60% and 75% mineral clay, between 1.0% and 3.5% β-glucans, between 0.1% and 3.0% β-1,3 (4)-endoglucanohydrolase and between 1.0% and 6.0% glucomannan.

28. The composition of Claim 1, wherein the combination of diatomaceous earth, a mineral clay, β-1,3 (4)-endoglucanohydrolase, β-glucan and glucomannan is admixed into foods or animal feedstuffs in a concentration of between 0.0125% and 5% by weight for the purpose of inhibiting fungal growth in feed, food or digesta.

29. The composition of Claim 1, wherein said composition is admixed into a food or feedstuff and is subsequently fed to domestic livestock.

30. The composition of Claim 1, wherein said composition is admixed into a food or feedstuff and is subsequently feed to ruminant livestock or avian livestock.